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(54) X-RAY INSPECTION SYSTEM

(75) Inventor: **Michael P. Ellenbogen**, Wayland, MA (US)

Correspondence Address:
Randy J. Pritzker
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, MA 02210-2206 (US)

(73) Assignee: **L-3 Communications Security and Detection Systems Corporation Delaware**, Woburn, MA (US)

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(57) ABSTRACT

An X-ray inspection system and methodology is disclosed. The system comprises a conveyor, an X-ray source that exposes an item under inspection to X-ray radiation and at least one X-ray detector that detects X-ray radiation modified by the item. The X-ray source and X-ray detector may be movable in any of first and second dimensions. The X-ray source may also be moved in a third dimension to zoom in and out on regions of interest in the item order inspection. The system further comprises a controller that controls movement of the X-ray source and X-ray detector, independently of each other, in any of collinear and different directions, to provide a plurality of X-ray views of the item at varying examination angles of the X-ray radiation. A processor coupled to the controller may be configured to receive and process detection information from the X-ray detector and to provide processed information to an operator interface. The operator interface may also receive instructions from an operator input and provide the instructions to the controller.